

REMARKS

Applicant respectfully requests reconsideration and allowance of the present application in view of the foregoing amendments and the following remarks.

Claims 1-20 are pending in the present application, with Claims 1, 8, 12, 16, 17, and 20 being independent.

Claims 1, 8, 11, 15, 16, and 17 have been amended, and Claim 20 has been added. No new matter is believed to have been added.

The specification and Claim 16 have been objected to as containing minor informalities. These have been amended in response to the Examiner's objection.

Claim 11 has been rejected under 35 U.S.C. §112, first paragraph because the specification is said to lack an enabling disclosure of “both the light sources” being an LED, an EL, a cathode ray tube, or a laser. Applicant has amended Claim 11 in view of the Examiner's comments, and submit that Claim 11 now even more fully satisfies the requirements of the first paragraph of 35 U.S.C. §112. Accordingly, reconsideration and withdrawal of the §112, first paragraph rejection are respectfully requested.

Claims 1-11 and 15-19 have been rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. Applicant has amended independent Claims 1, 8, 16, and 17, and submits that those claims, and the claims that depend therefrom, now even more fully satisfy the requirements of the second paragraph of 35 U.S.C. §112. Applicant has also amended dependent Claim 15, and submits that it now even more fully satisfies the §112, second paragraph requirements. With regard to the term “image-pickup” in independent Claim 16, Applicant directs the Examiner's attention to, for example, page 5, line 25; page 7, lines 3 and

10; and page 10, line 14 of the specification, in which “image-pickup” is defined to mean imaging. Applicant submits that the term “image-pickup” does not render Claim 16 indefinite. Reconsideration and withdrawal of the §112, second paragraph rejection are respectfully requested.

Claims 1-3, 5-7, and 17-18 have been rejected under 35 U.S.C. §103(a) as allegedly being obvious over U.S. Patent No. 6,160,260 (“Yamayoshi”) in view of U.S. Patent No. 5,777,335 (“Mochizuki”). Claims 8-14 and 16 have been rejected under 35 U.S.C. §103(a) as allegedly being obvious over Yamayoshi in view of U.S. Patent No. 6,392,237 (“Agano”). Claim 19 has been rejected under 35 U.S.C. §103(a) as allegedly being obvious over Yamayoshi in view of Mochizuki, and further in view of U.S. Patent No. 5,811,790 (“Endo”). These rejections are respectfully traversed.

Independent Claim 1 of the present invention, as amended, recites a photoelectric conversion device having a photoelectric conversion substrate composed of a substrate and a plurality of photoelectric conversion elements installed in the substrate, a light source that radiates light rays having no image data, and an outer casing for housing the photoelectric conversion substrate and the light source. In the device, between an irradiating period for obtaining image data and a non-irradiating period during which reading out is not carried out, the light source is turned on in the non-irradiating period.

Independent Claim 8, as amended, recites a photoelectric conversion device having a substrate provided with a plurality of photoelectric conversion elements for carrying out photoelectric conversion of incident light rays having image data, a first light source that radiates light rays having image data to the plurality of photoelectric conversion elements, and a second

light source that irradiates light rays having no image data to the plurality of the photoelectric conversion elements.

Independent Claim 12 is directed to an image data processing system having a photoelectric conversion device comprising a substrate provided with a plurality of photoelectric conversion elements and a light source for radiating light rays having no image data to a plurality of the photoelectric conversion elements, a radiation source, and control means for independently controlling the radiation source and the photoelectric conversion device.

Independent Claim 16, as amended, is directed to a driving method of an image data processing system which comprises a first and a second light source, a semiconductor element having a semiconductor layer having an absorption region in a wavelength of light rays radiated from the second light source, and control means for independently controlling the first and the second light sources. The driving method includes the steps of radiating light rays of the first light source during an image-pickup period and reading out image data, the light rays of the first light source having image data, and radiating light rays of the second light source during an non-image-pickup period, the light rays of the second light source having no image data.

Independent Claim 17, as amended, is directed to a radiation detection apparatus including a photoelectric conversion substrate composed of a substrate and a plurality of photoelectric conversion elements installed in the substrate, and an outer casing housing the photoelectric conversion substrate, wherein the outer casing further contains a light source that radiates light rays having no image data.

Independent Claim 20 recites a driving method of a radiation image-pickup device having a plurality of photoelectric conversion elements. The driving method comprises a

radiation photographing step of radiating a radiation to an object to be read out in order to obtain an image information, and a step of radiating light of a light-absorbing wavelength region of the photoelectric conversion elements before the image-pickup step.

According to the Office Action, independent Claims 1 and 17 are obvious over Yamayoshi in view of Mochizuki. In particular, the scintillator/light source (3) of Yamayoshi is said to be turned on in conjunction with an x-ray pulse. Applicant submits that in Yamayoshi, the time when the x-ray is off is a non-irradiating period in which information is not read out; therefore, the scintillator/light source (3) turns on or off, synchronizing the on- or off-state of the x-ray pulse. Even assuming, only for the sake of argument, that it would be proper to combine the cited references in the manner suggested by the Office Action, Applicant submits that the proposed combination of Yamayoshi and Mochizuki still fails to teach or suggest at least the features of the present invention that a light source is turned on in a non-reading-out period (Claim 1) or that a light source radiates light rays having no image data (Claims 1 and 17). Applicant submits that independent Claims 1 and 17 patentably define the present invention over the cited art. Accordingly, reconsideration and withdrawal of the §103 rejection are respectfully requested.

Independent Claims 8, 12, and 16 are said to be obvious over Yamayoshi in view of Agano. However, Agano discloses that a latent image is read out by laser with respect to accelerated phosphor. Agano does not teach or suggest a second light source that irradiates light rays having no image data (to the plurality of the photoelectric conversion elements). Assuming that it were proper to combine the cited references in the manner suggested by the Office Action,

Applicant submits that the proposed combination of Yamayoshi and Agano still fails to teach or suggest at least the features of the present invention discussed above.

Regarding the rejection of Claim 19, even if it were proper to combine the references in the manner suggested by the Office Action, Endo fails to remedy the deficiencies of the proposed combination of Yamayoshi and Mochizuki discussed above.

Applicant submits that Independent Claims 8, 12, and 16 patentably define the present invention over the cited art. Reconsideration and withdrawal of the §103 rejection are respectfully requested.

For the foregoing reasons, Applicant submits that the independent claims patentably define the present invention over the citations of record. Further, the dependent claims should also be allowable for the same reasons that the base claims from which they depend are allowable, and further due to the additional features that they recite. Separate and individual consideration of each of the dependent claims is respectfully requested.

Applicant believes the present Amendment is responsive to each of the points raised by the Examiner in the Office Action and submits that the present application is in allowable form. Favorable consideration of the claims and passage to issue of the present application at the Examiner's earliest convenience are earnestly solicited.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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